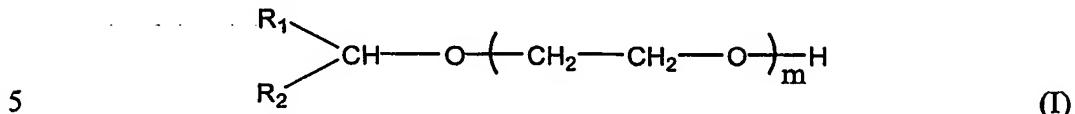


THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

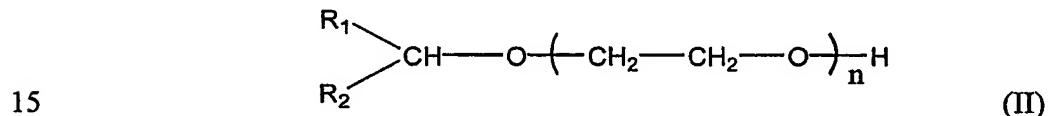
1. A compound of the formula (I):



wherein R_1 and R_2 are each independently $\text{C}_1\text{-C}_4$ alkyl, and
 m is 1, 2, 3, 4, or 5.

10 2. A compound according to claim 1, wherein the group $\text{R}_1\text{R}_2\text{CH-}$ is 4-methyl-pent-2-yl.

3. A composition comprising at least two compounds of formula (II):



wherein R_1 and R_2 are each independently $\text{C}_1\text{-C}_4$ alkyl, and n is an integer ≥ 0 and
 wherein the average molar value of n for the total of the compounds of formula (II) in said
 composition is in the range of 1 to 3.

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4. A composition according to claim 3 wherein the average molar value of n is in the range of 1 to 2.

25 5. A composition according to claim 4 wherein the average molar value of n is about 1.7.

6. A composition according to claim 3 or claim 4 wherein $\text{R}_1\text{R}_2\text{CH-}$ is 4-methyl-pent-2-yl.

7. A composition according to any one of claims 3 to 6, wherein the compound of formula (II) where $n=0$ comprises less than 15% by weight of the total composition.

5 8. A composition according to claim 7, wherein the compound of formula (II) where $n=0$ comprises less than 10% by weight of the total composition.

9. A composition according to claim 7 or claim 8, wherein the compound of formula (I) where $n=0$ comprises less than or equal to 6.5% by weight of the total composition.

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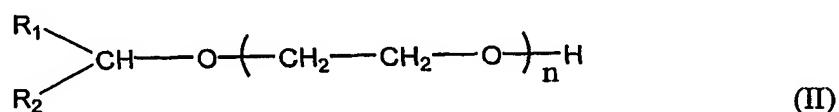
10. A composition according to any one of claims 3 to 9, wherein the total combined weight of compounds where $n=0$ and $n=1$ is such that the closed-cup flash point of said composition is greater than 65°C.

15 11. A composition according to any one of claims 3 to 10, wherein the total weight of compounds of formula (I) where n is greater than 4 is less than 20% of the combined total of compounds of formula (I).

20 12. A composition according to any one of claims 3 to 11 which further comprises other additives.

13. A method of preparing a composition comprising at least two compounds of formula (II):

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wherein R_1 and R_2 are each independently $\text{C}_1\text{-C}_4$ alkyl, and n is an integer ≥ 0 , and wherein the average molar value of n for the total of the compounds of formula (II) in said composition is in the range of 1 to 3, said method comprising; reacting an excess of $\text{C}_3\text{-C}_9$ secondary alcohol with ethylene oxide in the presence

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of a catalyst in an ethoxylation vessel to form a mixture of two or more compounds of formula (II), separating at least a portion of unreacted secondary alcohol from the mixture recycling the unreacted secondary alcohol back to the ethoxylation vessel.

5 14. A method according to claim 13, wherein the C₃-C₉ secondary alcohol is 4-methyl-2-pentanol.

15. A method according to claim 13 or claim 14 wherein the unreacted secondary alcohol is removed by distillation to provide a composition comprising unreacted 10 secondary alcohol in an amount of less than 15% by weight of the total composition.

16. A method according to claim 15, wherein unreacted secondary alcohol comprises less than 10% by weight of the total composition.

15 17. A method according to claim 15 or claim 16, wherein the unreacted secondary alcohol comprises less than or equal to 8% by weight of the total composition.

18. A method according to claim 13 comprising a distillation step to remove from the composition compounds of formula (II) wherein n=0 and n=1 such that the closed-cup 20 flash point of said composition is greater than 65°C.

19. A method according to any one of claims 14 to 17 wherein total weight of compounds of formula (II) where n is greater than 4 in said composition is less than 20% of the combined total of the compounds of formula (II) in the composition.

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20. A method according to any one of claims 13 to 18, wherein the ethylene oxide to C₃-C₉ secondary alcohol ratio is kept below 70 wt% in said ethoxylation vessel.

21. A method according to claim 20, wherein the ratio is kept below 10 wt%.

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22. A method according to any one of claims 13 to 20, wherein the catalyst is an alkali

metal or alkaline earth metal base catalyst or a Lewis or Bronsted acid catalyst.

23. A method according to any one of claims 13 to 21, wherein the catalyst is a Narrow Range Ethoxylation catalyst.

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24. A method according to claim 22, wherein the alkali metal catalyst is potassium hydroxide.

25. A method of preparing a compound of formula (I) according to claim 1, comprising
10 reacting a C₃-C₉ secondary alcohol with ethylene oxide in the presence of a catalyst, and isolating the compounds from the reaction mixture by distillation.

26. Use of a composition according to any one of claims 3 to 12 in the recovery of clean coal in a froth flotation process.

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27. Use of a composition according to claim 26, wherein the froth flotation process is performed in a Microcel®.

28. Use of a composition according to claim 26, wherein the froth flotation process is
20 performed in a Jameson® cell.

29. Use of a composition according to claim 26 wherein the froth flotation process is performed in an EKOF® cell.

25 30. Use of a composition according to any one of claims 3 to 12 to lower surface tension and to improve the performance of dissolved air flotation.

31. Use of a composition according to any one of claims 3 to 12 in the recovery and concentration of desirable minerals or selective removal of undesirable minerals by
30 flotation.

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32. Use of a composition according to any one of claims 3 to 12 in the recovery of sulphide minerals by flotation.

33. Use of a composition according to any one of claims 3 to 12 for refining mineral or coal by froth flotation.

34. Use of a composition according to any one of claims 3 to 12 as a solvent/co-solvent for formulation of dyes, oils, resins and other industrial products.

10 35. Use of a composition according to any one of claims 3 to 12 for coupling of polar organic compounds with hydrocarbon liquids.

36. Use of a composition according to any one of claims 3 to 12 as a diluent for hydraulic fluids.

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